A remarkable display: SID 2010

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Seattle: home of Microsoft, Starbucks, grunge rock, the Mariners, and in 2010, the Society for Information Display [1] (SID) Conference. This year's show was a remarkable display (no pun intended) of eye candy and emerging technologies. Among the many developments, 3D, energy efficiency, and advanced touchscreens took center stage.

The unofficial theme of this year's Consumer Electronics Show [2] (CES) was 3D, and SID followed suit. The big players all showcased 3D TVs, most of which required active shutter glasses. Several showed off "autostereoscopic" 3D displays that didn't require glasses—a major development. Sharp and 3M gave me demos of this technology, and it shows promise.

The displays use a parallax barrier to create a 3D effect without the need for special glasses. Unfortunately, the technology is single-user—you must be in the optimal position to perceive three dimensions. The tech is perfect for small, portable devices (such as Nintendo's upcoming handheld, the 3DS [3]), but won't work for the TV in the den.

At SID 2010, Microchip gave me a demo of their projected capacitive touchscreen technology.

Though I didn't see it, Newsight showcased a digital photo frame that uses "motion parallax [4]" to create five separate images, allowing you to "see around" 3D images. What's unclear is whether this allows multiple viewers to perceive 3D, or whether it simply creates multiple viewing angles—if the former, this would be a huge step towards commercializing 3D. In this editor's opinion, the clunkiness of 3D glasses will prevent the tech from entering the mainstream. Who wants to wear special glasses just to watch TV?

In the area of energy efficiency, transflective backlit displays made a huge splash. Renesas [5] and Sharp [6] were kind enough to demonstrate this tech, which *reflects* and *transmits* light (hence *transflective*) in order to save power. Transflective displays are readable under direct sunlight without a backlight—as opposed to transmissive displays, which have to be backlit at all times. In the demos I observed, a backlight was switched on and off, and the transflective display was readable in both instances.

Of course, who could forget about touchscreens? After all, this was a display show. Ocular [7] and Stantum boasted advanced multi-touch displays, with input for up to 10 fingers. Stantum's Slate PC tech demo (billed as "the future of netbooks") featured a resistive touchscreen that recognizes both finger and stylus input. Microchip [8] showed off their projected capacitive touchscreen technology, an addition to their mTouch [9] family.

This barely scratches the surface of all the cool tech I saw at SID 2010. Special thanks to Dontech [10], Global Lighting Technologies [11] (GLT), NEC [12], and Endicott Research Group [13] (ERG) for educating me on their latest and greatest technologies. And be sure to check out ECN's coverage [14] of the 2010 Society for Information Display Conference!

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